

FIG. 1

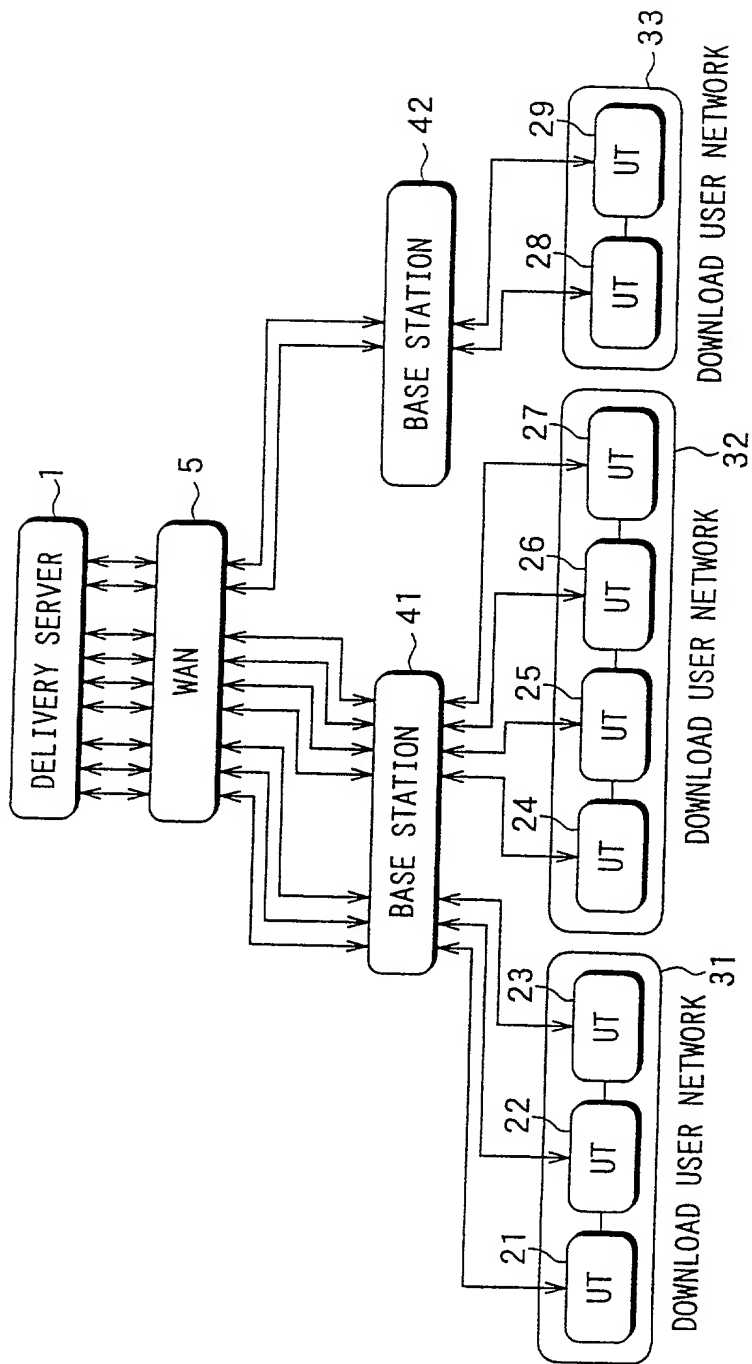


FIG. 2

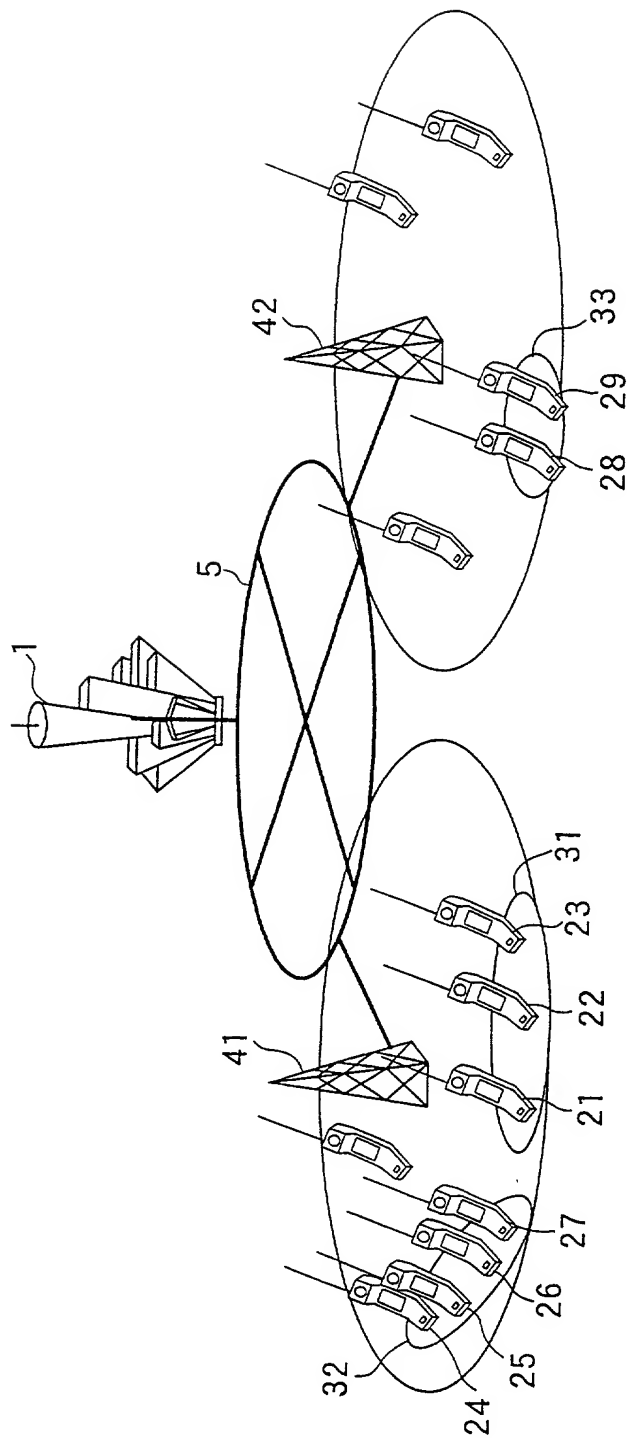


FIG. 3A

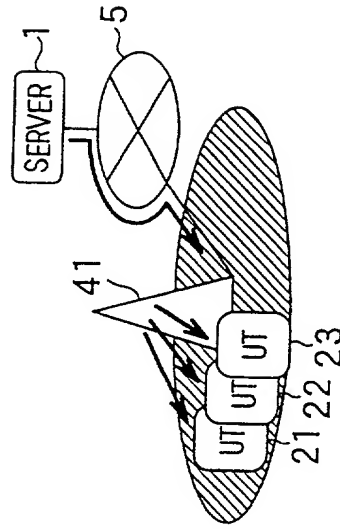


FIG. 3B

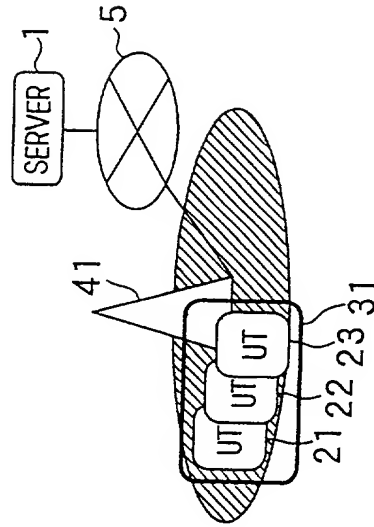


FIG. 3C

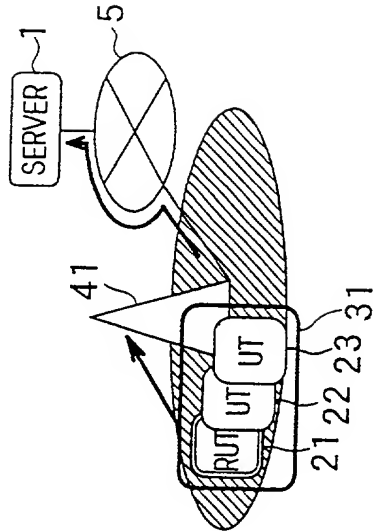


FIG. 3D

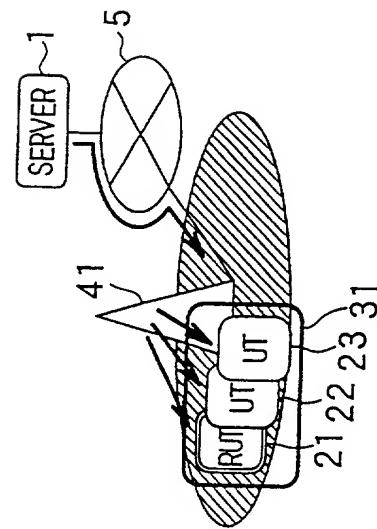


FIG. 3E

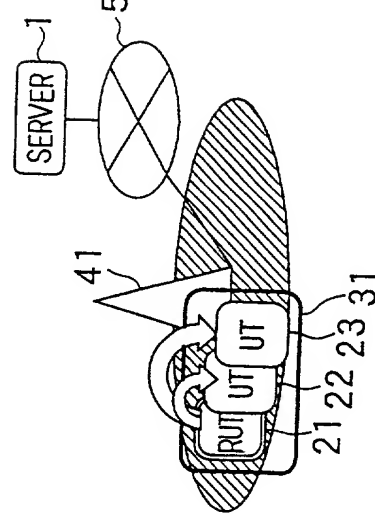
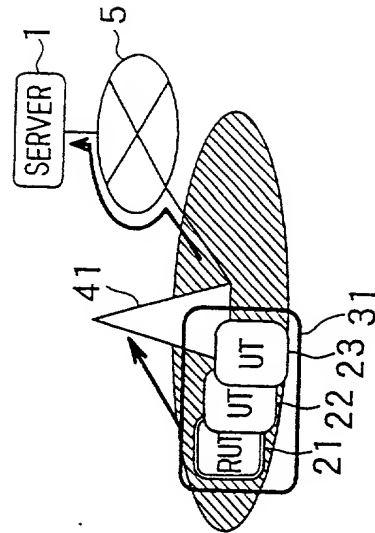


FIG. 3F



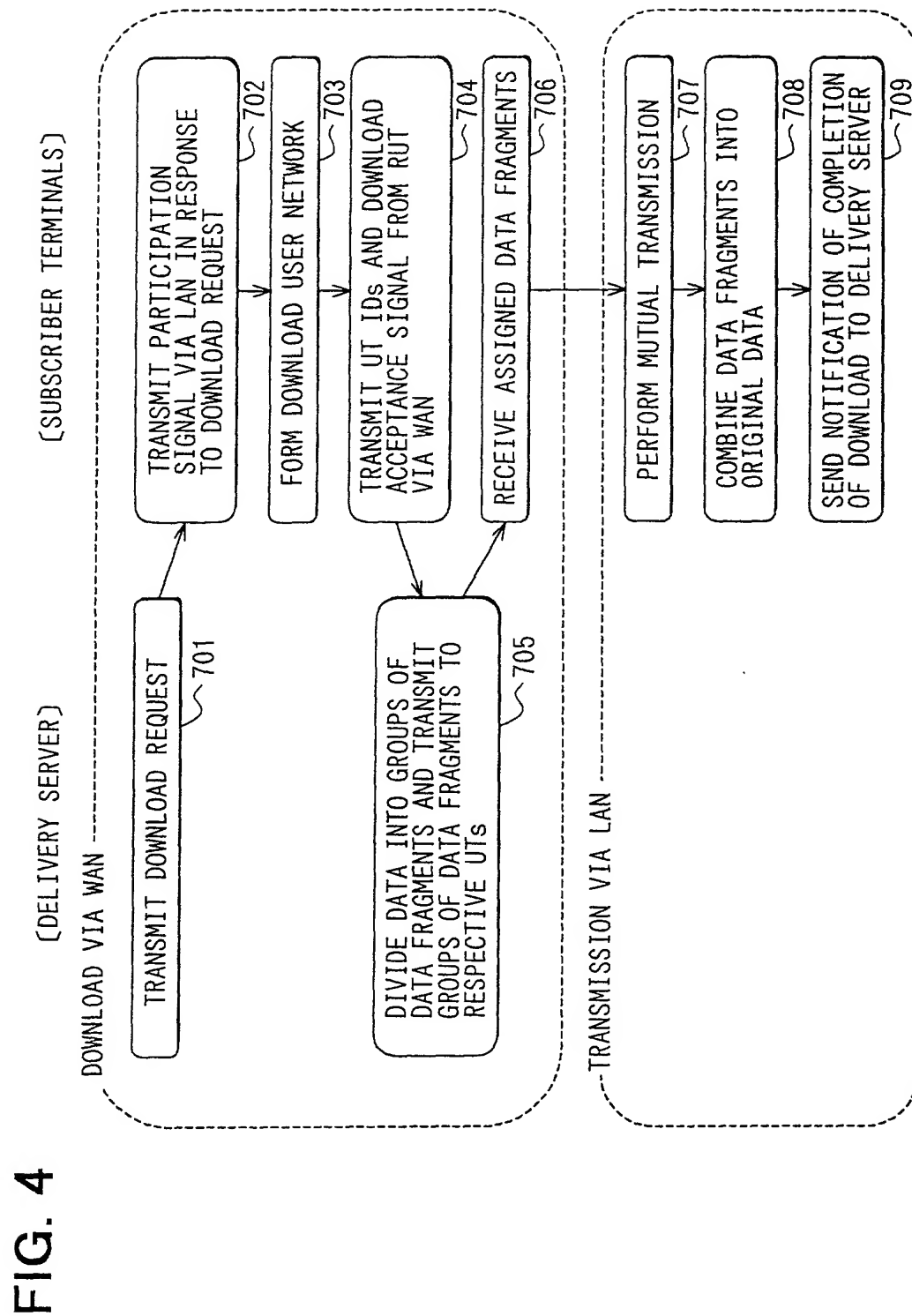


FIG. 5A

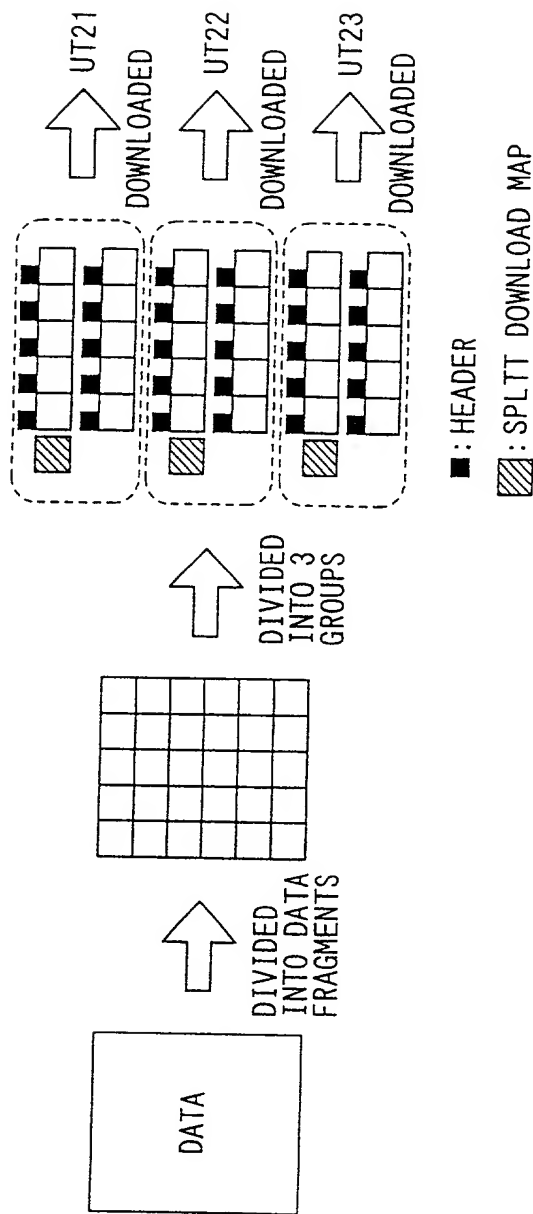


FIG. 5B

DATA ID INFORMATION:CDxxxxxxx
 DOWNLOAD USER NETWORK ID:00xxxxxxx
 DATABASE OF NUMBER AND POSITION OF
 DATA FRAGMENTS ASSIGNED TO EACH UT
 USER A:No.1 ~No.10
 USER B:No.11~No.20
 USER C:No.21~No.30
 NUMBER OF UPDATES:0

FIG. 6

ONE-TO-ONE MUTUAL TRANSMISSION						
DOWNLOADED DATA FRAGMENTS :	UT :	A	B	C	D	E
RESULT OF FIRST STAGE :		a	b	c	d	e
RESULT OF SECOND STAGE :		ab	ab	cd	cd	ef
RESULT OF FINAL STAGE :		abcd	abef	abcd	cdef	abef
		abcdef	abcdef	abcdef	abcdef	abcdef
						F
						f
						ef
						cdef
						abcdef

FIG. 9

ONE-TO-MULTIPLE MUTUAL TRANSMISSION						
DOWNLOADED DATA FRAGMENTS :	UT :	A	B	C	D	E
RESULT OF FIRST STAGE :		a	b	c	d	e
RESULT OF SECOND STAGE :		a	ab	ac	ad	ae
RESULT OF THIRD STAGE :		ab	ab	abc	abd	abe
RESULT OF FOURTH STAGE :		abc	abc	abc	abcd	abce
RESULT OF FIFTH STAGE :		abcd	abcd	abcd	abcd	abcde
RESULT OF FINAL STAGE :		abcde	abcde	abcde	abcde	abcde
		abcdef	abcdef	abcdef	abcdef	abcdef
						F
						f
						af
						abf
						abcf
						abcdf
						abcdef
						abcdef

FIG. 7

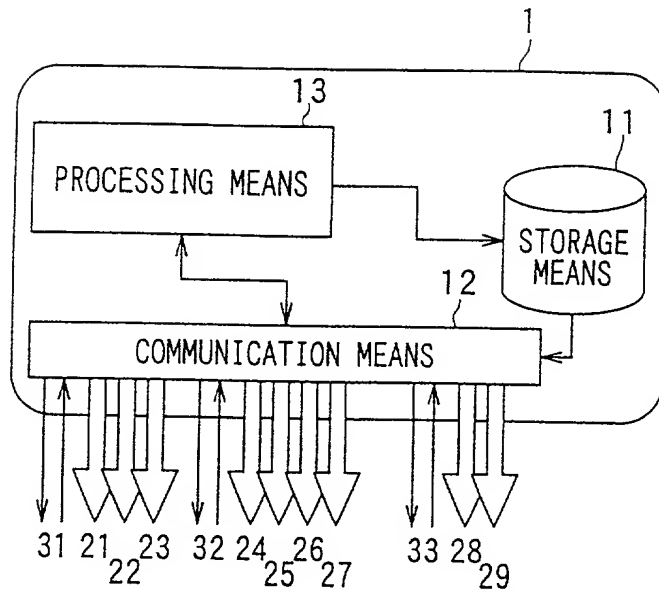


FIG. 8

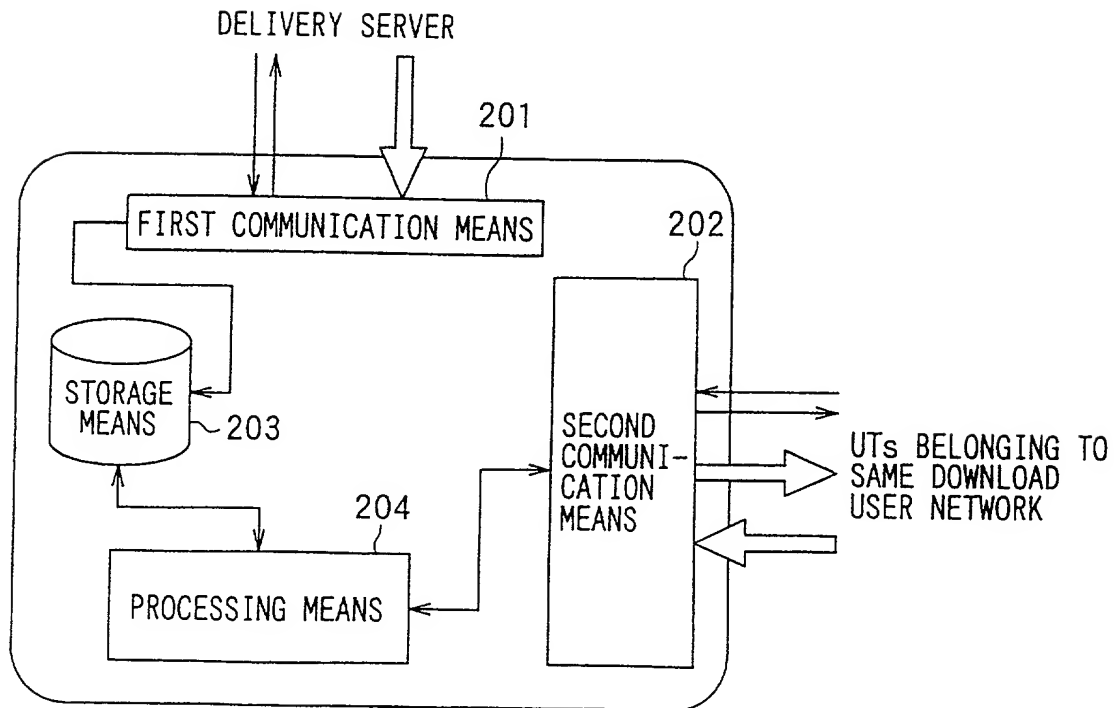


FIG. 10

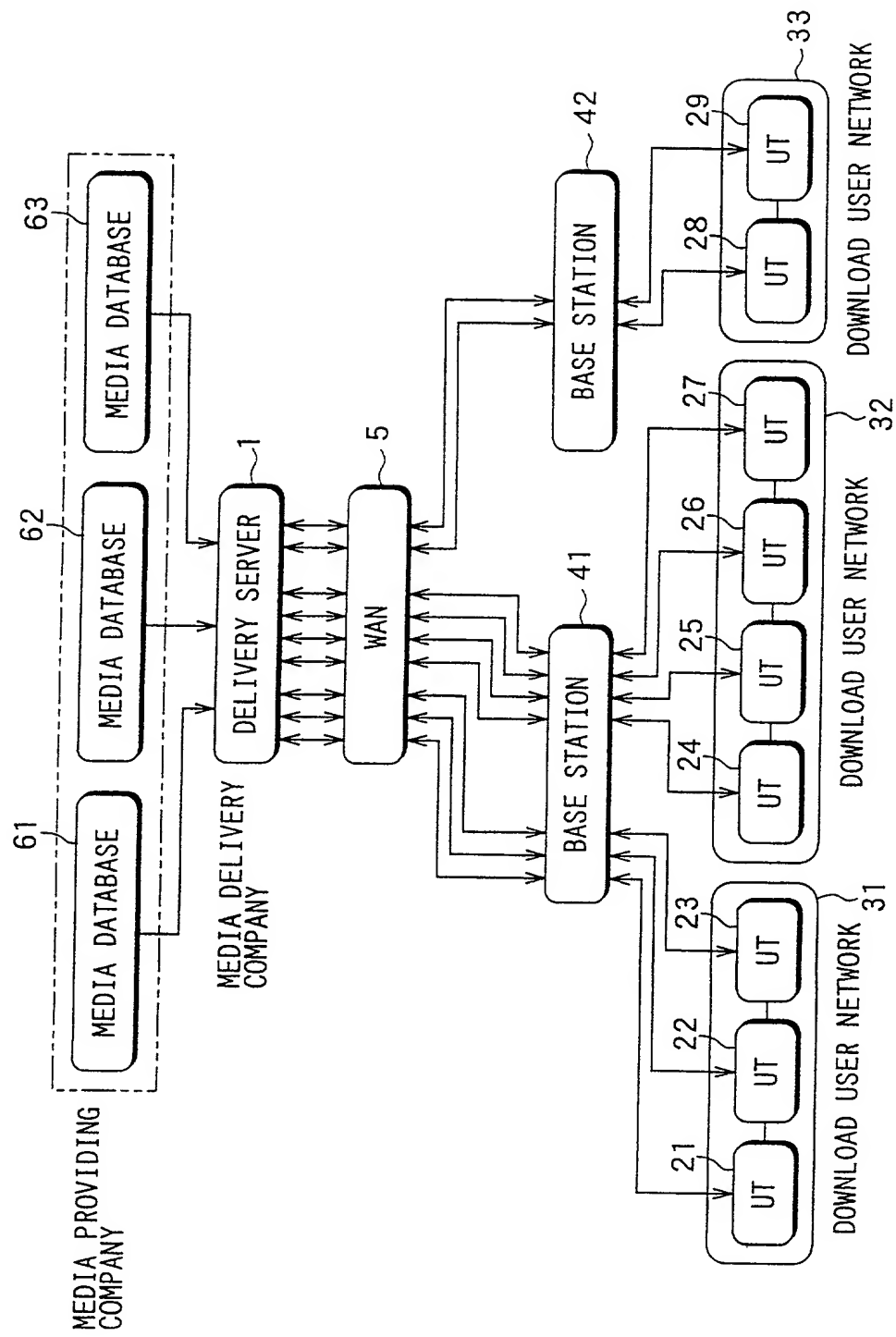


FIG. 11

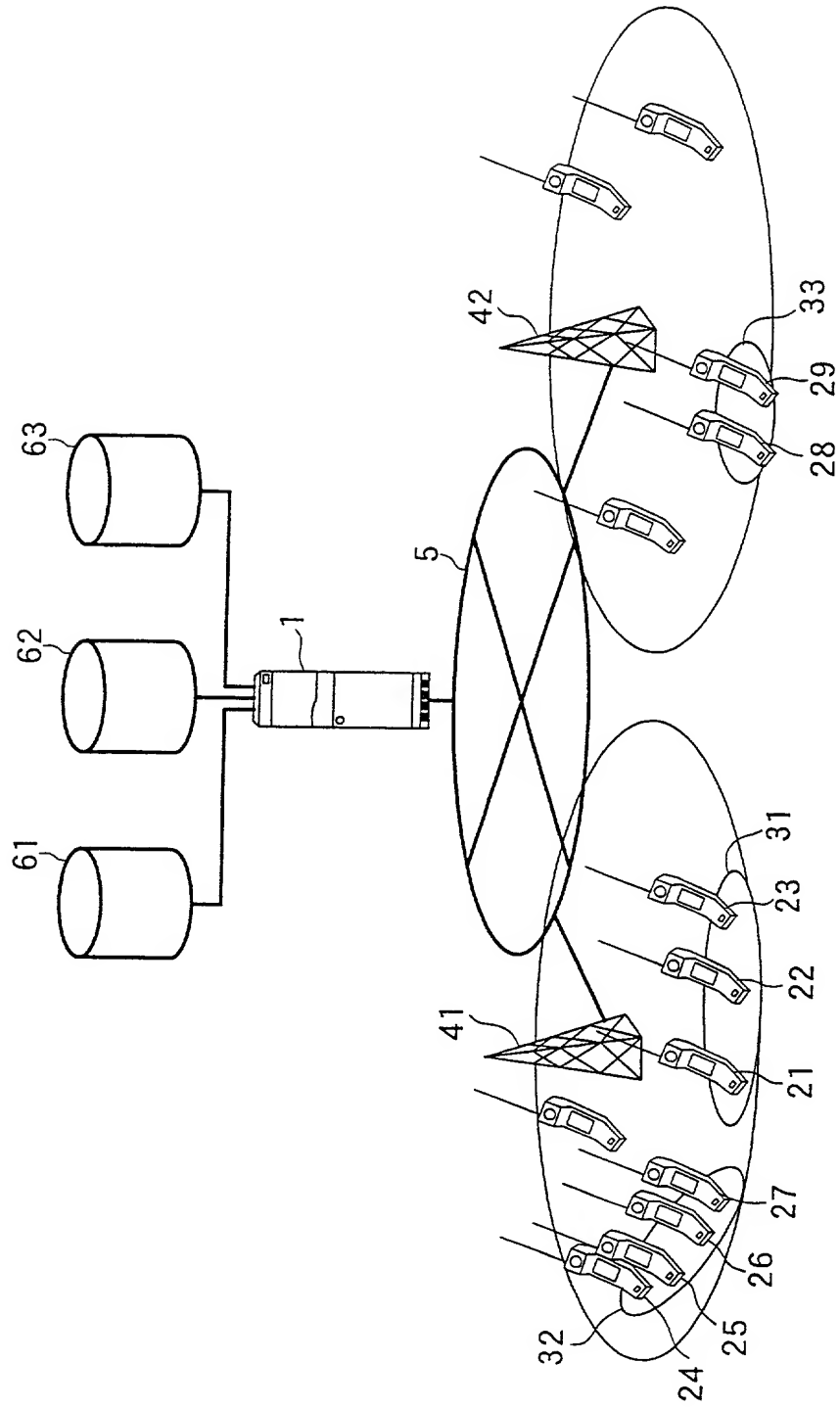
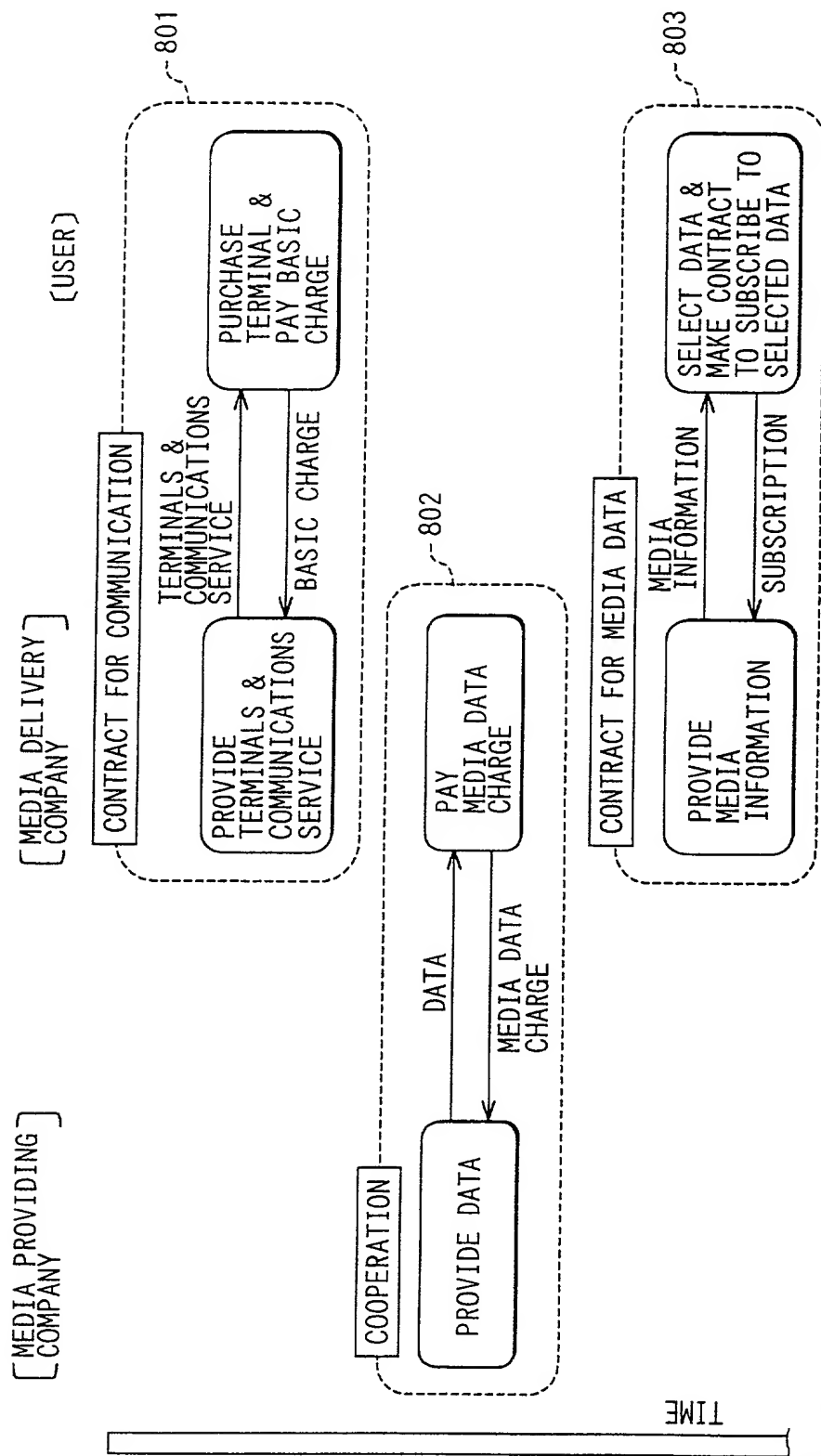


FIG. 12A



TO
FIG. 12B

FIG. 12B

